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ABSTRACT

Although researchers have suggested recently that the student instructional domain needs to be explored, most studies continue to cast their designs in relation to end of course ratings that obstruct developing a more inclusive model for classroom behaviors. Hypothesizing that expectations function as prior cognitive states, activating and determining student classroom interactions including evaluations, this study design differentiated three sets of expectations, identifying the contextual ones as associated with classroom outcomes. The instrument derived its twenty survey items from previous works which then were scaled using Semantic Differential adjectives, and administered to 209 subjects in eight social science classes in three colleges at the beginning and close of a semester. The study concluded that extrapolations from single measures of classroom behaviors may be of limited value and that expectations need to be integrated into a learning group framework to make evaluations meaningful. (Author/BW)

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The Role of Student Instructional Expectations in the College Classroom: A Critique and Empirical Analysis

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ABSTRACT

The Role of Student Instructional Expectations in the College Classroom:

A Critique and Empirical Analysis

Although researchers have suggested recently that the student instructional domain needs to be explored, most studies still continue to cast their designs in relation to narrowly focused end-of-course ratings that obstruct developing a more inclusive model for classroom behaviors. The study hypothesized that expectations do function as prior cognitive states activate and continue to determine student classroom interactions including evaluations. The design differentiated 3 sets of expectations identifying the contextual ones as associated with classroom outcomes. The instrument derived its 20 survery items from previous works which then were scaled using Semantic Differential adjectives and administered to 209 Ss in 8 social science classes in 3 colleges at the beginning and close of a semester. Organized and discussed into 6 Critical Incident instructional categories, the findings produced significant differences between the two administrations but this contrasted with the bulk of the findings that demonstrated varying ways that expectations influenced outcomes. Year in college data between freshmen and sophomores found the latter showing greater discrepancy, despite both beginning at the same expectations "fix." Analysis of ranks by colleges showed students being influenced by initial expectations categories. Intercorrelations matrix of expectations and evaluations reported 52 of 400 items with $r<.05$ and almost all corresponding instrument items were correlated significantly. Factor analysis showed parallel cluster loadings for the two instrumentations. The study concluded that extrapolations from single measures of classroom behaviors may be of limited value and that expectation needs to be integrated into a learning-group framework to make evaluations meaningful.

The Role of Student Instructional Expectations in the College Classroom--
A Critique and Empirical Analysis*

In their recent article on the perception of instructional behaviors, Blackburn and Clark (1975) found that there are widely discrepant views held by students, instructors and administrators in their assessment of actual teaching performance. They conclude that "communication lines have not been established to detail what each of the subgroups expects of a professor--to say nothing of whether or not any human being can satisfy people who have very diverse, even conflicting demands." Their conclusion is that "conversations regarding expectations are the very least that must be done" (p.252). The present study concerns itself with this much-neglected area of college students' instructional expectations within the natural classroom setting.

A Critique of Expectations

At present there is no model of classroom dynamics that includes student instructional expectations as one of its treatment variables (see Bopcock, 1972). Nor have researchers expressed interest in including student evaluations as part of a larger classroom model other than to perfect instrumentation or to establish acceptable rating reliability (Miller, 1972). Nonetheless, some researchers have attempted recently to relate a form of the expectations dimension to evaluations of instructional behaviors in a more dynamic framework. Kohlan (1973) had students rate faculty "early" and "late" in a course and found that the significant concurrence of the two evaluations, as he called them, could be attributed largely to the importance of initial student impressions. Greenwood et al. (1973), who reported students and instructors agreeing on their evaluations of both good and bad teaching behaviors, suggested that this mutuality in perception made cooperative definition of course objectives appropriate. More recently, Gimmel (1974) had students project their notions of acceptable instructional behaviors, but,

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here as in Miller's (1972) more extensive work, the designs use posthoc settings. Despite this increased interest in relating some formulation of student expectations to instruction, few studies recommend employing a design that treats the interaction of expectations and evaluations explicity.

The most obvious deficiency of ratings research is the absence of a group process framework which defines its parameter variables. Researchers have not found it necessary to account for the influence of such fundamental group dynamics variables as membership, power or cohesiveness. Yet, if one tries to cast one-shot ratings in group process terms the most striking feature is a simple input (teacher's behavior)-output (students' reactions) approach that seems to function more as a summation of dyadic relations. When researchers have tried to treat group process variables these have usually been in small group situations where membership, affiliation and role relationships become characteristic of self-defining performance groups (Mills, 1964). If the problem is that most instruction takes place in sections larger than 15 students making such mutuality impossible, it has been ignored as a treatment variable even by researchers who have tried to control for those variables as class size and type of instruction (Costin, et al.,1971). Thus, it may be possible to suggest that some classrooms are small groups in a strict sense in which such variables as tasks, performance roles or consistency can be defined conventionally while most classrooms are temporary associations where the usual conceptual apparatus of group dynamics may only substitute for lack of any other formulation. In any case, the logic of group dynamics implies that the attributes of any good teaching may lie less in the summation of individual personality traits (Miller, 1972) and more in the capacity to render a distinctive and consistent group definition characterized by certain role leadership and social climate qualities demanded by different learning situations.[1]

In constructing any group-based model for the classroom one needs to learn whether student expectations function as a prior empirical state. We may suggest that there are at least three sets of expectations exhibited by college students that may be summarized briefly as—one, the more general situational expectations defined in terms of institutional press (Stern, 1970), and, two,

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[1]It is assumed implicitly that evaluations of the sort discussed by most researchers refers to undergraduate school for we may employ group dynamics frameworks more readily to graduate and professional education which is defined by task, team or workplace parameters.

the more informal consensual expectations associated with non-curricular activities and student subculture (Newcomb, 1966). A third set relates directly to the classroom dynamics and may be called contextual in that this defines behaviors in the the most the most complex educational setting.

Our definition of contextual expectations is based on Stogdill's (1959) work on role leadership in task groups. He defines expectations as "the estimated probability of occurrence of possible outcome and the estimated desirability of outcome" (p.62). In submitting that expectations are grounded prior states, this notion differs from studies that elicit traits of an ideal professor which may be called normative expectations (Rees, 1969).

In examining whether there is an inherent relationship between student expectations and evaluations, we may suggest two possibilities. First, that students do not know what to expect or that their expectations are irrelevant to the classroom process. Second, that students' expectations, inherent to the classroom process, play a significant role in shaping their evaluations. In proposing the latter we may ask further—in what ways can evaluations be said to measure student expectations or teacher behaviors? Stated in terms of Gage's three models of the classroom, we will examine whether "changes in student/s/—the dependent variable" may be attributed "to some measure of the teacher's behavior or classroom experience" (1961:17).

METHOD

The study was longitudinal in design. An expectations instrument was administered on the second class meeting to 209 students divided into 8 introductory social science classes in 3 colleges. The survey instructions informed respondents that its aim is "to determine what you expect will happen in this course." The students were not informed that the same instrument, modified for evaluations, would be retaken at the end of the semester. The instructors were recommended by department heads as experienced teachers who used both lecture and discussion methods. Class size was not possible to control other than not to employ the small-group seminar nor the large lecture, thereby making the sample typical of most college instruction (N=21 to 40). The cooperating instructors agreed to the instrumentations without discussing them until the data were fully collected. The three colleges were selected because each shares the explicit institutional goal of stressing teaching functions and because their differentiated clientele would serve as a partial internal control. Further, a multi-institutional design enchances the data's

comparability. The colleges may be identified as—Alpha, a two-year college for women enrolling about 400 students, Beta, a comprehensive community college enrolling about 2,500 full-time students, and Gamma, a four-year co-educational college enrolling about 1,600 students.

The instrument employed developed principally from two different and widely-used analytical rating techniques. One can be found in the University of Michigan studies (Isaacson et al., 1963) that applied factor analysis to items gathered from previously used rating instruments. From such a pool of 145 items, these studies derived 34 significant ones. The second rating technique identified items through the Critical Incident method (hereafter CI) following Ryans (1960). By employing structured and unstructured procedures, Owen (1967) composed an inventory of critical incidents students associated with college instructors' behaviors. He also found a high degree of intercorrelation between these CI items and the Michigan ones. Thus, the items for the present study's instrument were selected from both Owen's inventory and from the Michigan pool. In all, the 20 items used were clustered within the 6 Critical Incident instructional behavior categories developed by Owen. The 6 CI categories are—I-Content, Structure and Scope, II-Student Participation, III-Instructor's Style, IV-Teacher and Student Rapport, V-Evaluation of Students, and, VI-Requirements of Students. As both the items and the category clusters were derived from grounded estimates of desirable and probable behaviors associated with generalized instructional roles, they can be employed as an initial working approximation of contextual expectations being suggested here.

The instrument scale items followed the Osgood Semantic Differential technique (1957). A number of previous studies employed this technique to ratings schedules with promising results (Rees, 1969). The present approach utilized one bipolar pair of adjectives per instrument. As an example, one item from Content, Structure and Scope included—

"What do you expect the instructor's knowledge of the subject to be?"

Superior___:___:___:___:___:___:___Weak

The number of items for each category were: I—Content (4); II—Participation (3); III—Style (3); IV—Rapport (3); V—Evaluation (3); and VI—Requirements (3). The twentieth item sought to determine student reaction to the instrument itself and may be included with Evaluation. Naturally, for the end-of-term evaluations instrument all items were appropriately changed.

RESULTS

Since we want to know the extent to which we can speak of student expectations as a prior cognitive state and whether they are transformed by the classroom process, we may state our major hypothesis in the null form: that in each social science class no statistically significant differences for student expectations would appear in any of the 6 CI categories when compared with subsequent student evaluations. To test this hypothesis group means were gathered and compared within each class using the *t* test between correlated means in the two-tailed form as the null hypothesis did not include a prediction of direction. The data are reported in Table 1.

The data in Table 1 revealed that in each of the classes for Beta and and Gamma colleges significant differences between expectations and evaluations were found in virtually all of the CI categories with most of the differences at the .01 decision level. Alpha college classes reported some significant differences in 3 of its 4 classes. Out of a possible 48 CI expectations-evaluations comparisons 30 reached statistically significant differences in the 8 classrooms. In only 4 instances in classes A and B of Alpha college did the mean differences for the evaluations outweigh the expectations and only one produced a decision of significance. It seemed little risk to reject the null hypothesis for its alternative that differences were to be found between student expectations and their evaluations.[2] We must know, however, whether the students record their expectations and evaluations in keeping with each other's cognitive perception of the classroom dynamic.

Two other kinds of analysis will clarify this problem. First, when the data for the classes were gathered into freshmen and sophomore groupings within each college we can observe more closely what kind of conversation expectations had with evaluations. The data are reported in Table 2. Though the CI expectations levels differ for each classroom—in which case one might suggest that institutional expectations carry-over into the classroom contexts—the more revealing data for our hypothesis is the similarity between freshmen and sophomores. There was not a single significant difference between freshmen and sophomores in any of the classes. Thus, we may propose this finding suggests that by the second class session students "size-up" their situation and an expectations "fix" seems to be established. Further, we find that expectations continue to shape the classroom dynamic as was shown in the across-year data for evaluations also reported in Table 2. In each college—

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[2]Such intervening variables as sex, age and major did not have any noticeable affect on these findings (see Calista, 1973).

and for Beta completely—the CI evaluations categories produced significant differences between freshmen and sophomores. Despite the fact that they arrived at essentially the same expectations "fix" each group related to their experience differently, but consistently. Moreover, since almost all sophomore CI categories were actually higher than freshmen for evaluations, one can only conjecture whether this was due to sophomore "realism" or freshman "disenchantment." In any case each group seems to arrive at and respond to classroom climate more in keeping with its own experience.

A second kind of analysis also suggested that the expectations dimension behaved as an independent classroom variable. The data for how the CI categories were ranked in the colleges are presented in Table 3. In spite of the mean differences for each expectation CI category across the classes noted in Table 1, the relative overall college ranks are similar. Alpha and Gamma—the two-year institutions—were the same; Beta reported Rapport first with the difference between its second rank (Style) and third (Content) being fractional, so that for all intents and purposes one can say that the ranks across the colleges were the same. A different picture emerged for the ranks on the evaluations instrument. Although Alpha college students reported virtually the same evaluation ranks, the data for Beta and Gamma colleges disclosed significant shifts in the upper ranks. In both colleges first order expectations for Rapport reversed itself for Content on evaluations. Taken alone evaluations as a single measure would conceal these CI category shifts which could mislead one to assume that the college classroom is free of transformed student expectations. In quite a different way this transformation for Alpha college was revealed in students expressing lower initial expectations for one category (Evaluations) than the actual later evaluations instrumentation reported. It seems reasonable to suggest that for some the classroom experience could "improve" on what students expected.

In addition to an analysis of ranks, we may examine further whether expectations shape evaluations by comparing the correlations between the two instrument administrations. In keeping with the major hypothesis we may restate this version in the null form: that we will not find any significant correlations between expectations and evaluations items. The data are reported in Table 4. As can be observed readily there are statistically significant intercorrelations for almost all 20 CI expectations items and their counterparts; 2 of the 3 which are not (items 2 and 4) closely approach the $\underline{r}$=.23 for an .05 decision. For 7 items there were more than two intercorrelations

and, in all, 52 significant ones appeared out of matrix of 400. It seems little risk to reject the null hypothesis for its alternative that expectations do correlate with evaluations. This was amply supported by noting the analysis of variance for repeated measures within-groups reported in Table 5 which accounted for mean differences within acceptable tolerance limits of error.

It would now be helpful to learn whether students generated the same factor structures for each instrument administration. Similar factor clusters would tend to support the hypothesis that in spite of mean differences between expectations and evaluations, the former play a continuing role in defining classroom dynamics. In order to block for any bias between group rank crossovers already noted, the within group sum of squares were taken as residual scores. This depressed the number of meaningful rotated loadings which resulted in only two factors as cited in Table 5. The two factors did produce sufficiently high loadings, and this, despite certain item differences for each instrumentation. The first factor gathered CI items that held Style and Rapport in common each time and may be called the subjective vector; the second factor held Requirements and Evaluations in common and may be called the objective vector. The between factor movement of particular items may be discounted (e.g., item 10 from .31 in Factor II to .30 in Factor I) because the overall loadings in each factor remained stable.

The most striking contrast of the two vectors, however, was the more powerful directions revealed for the evaluations instrumentation. It seems that students would be more comfortable in revealing evaluations than expectations. As expected from our analysis of the ranks, a significant change in the evaluations administration saw Content load more with the objective vector and Participation became part of the subjective vector. Though it appeared more conventional to believe that Participation should be associated with Style and Rapport, it would not be unreasonable for students to expect that the latter two were related to Content in a social science course. Nonetheless, these changes do tell us that the expectations "fix" was subject to transformation which confirmed our hypothesis that expectations have an empirical quality within the classroom. Correspondingly, it is worthwhile noting that on the expectations administration the only CI category that failed to load significantly, though its higher loadings were located with the objective vector. We may infer that since students did not demonstrate

any tendency to identify Evaluations items with the subjective vector that expectations function as cognitive phenomena. That is, as students had no "wish" to make Evaluations subjective, we can safely say that contextual expectations are not normative.

DISCUSSION

The findings of this paper may be discussed in three ways. First, it found that at the very least student expectations should not be discounted as playing a minor role in defining instructional behaviors. For example, in contrast with the high congruence Kohlan (1973) found between "early" and "late" evaluations, we observed significant variability between mean expectations and evaluations as noted in Table 1. If one now needs to determine whether "early" and "late" evaluations operate the same way as contextual expectations, these discrepant findings certainly open questions about the process of evaluations. As such, this study did find that extrapolations from a single measure of student-teacher interaction may be of limited value in measuring overall classroom process.

The second finding dealt with the question of whether student evaluations measure teacher behaviors or student expectations. Our answer is both. To see this we need to compare two kinds of data analysis. If we consider the evaluations reported in Table 1 as ratings, then the Beta and Gamma teachers are apparently in need of major remediation. But the mean differences between the expectations and evaluations may not be explained by the presumed quality of instructional behavior. Turning to Table 3, we note that the Beta and Gamma classes initially ranked Rapport as th highest CI category which was then replaced by Content in the evaluations. There is no clear reason to attribute this reversal either to the quality of instruction or to the exposure to the discipline itself; the latter would gradually lead students to increased ambivalence about the relative place of Content in the course. One can only conjecture about the new cognitive process unfolding by suggesting a dissonance effect in which Rapport expectations remain as desirable as before, but its displacement affects other instructional behaviors that may not be negotiated completely even by the end of the course. Can it be stated conclusively that students learn more in courses in which expectations are fulfilled? Our evidence suggested that those students in Beta and Gamma college who did identify with Content by the end of the course may be a desirable affect. Put another way,

this paper found that increasing "conversations with expectations" may not necessarily lead to decreasing discrepant perceptions of faculty performance.

Such conversations, however, must take place within a grounded theoretical framework of classroom dynamics—our third concern. To the extent that acknowledgement of outcomes of a social activity by its members defines whether it can be treated as a group or an association, our evidence indicated there was no more reason to label classrooms as groups rather than associations. Even if a major finding was that students recorded their expectations as well as their evaluations in a highly consistent way, we can only look forward to further research into the operational source of these dimensions in students. Although we employed a group-based definition of expectations, we did so only to determine whether expectations functions as cognitive states in relation to measuring outcomes. Researchers now need to develop models of classroom behaviors that can treat expectations and evaluations as part of group process paradigms. If Mann et al. (1970) provide us with ample empirical evidence that even large-size classes are characterized by regular developmental and interaction sequences, the next step would be to locate further work on expectations and evaluations as part of a total learning-group process. Such integration can follow the general outlines provided by Boocock's (1972) sociology of learning. That there is a need for an interdisciplinary framework for evaluations research becomes apparent as one observes that in the past research has been dominated by psychologists stressing variables primarily related to individual traits of instructors (Isaacson, et al., 1963; Kohlan, 1973) and students (Blackburn and Clark, 1975) while only recently sociologists have entered the field emphasizing measures of classroom behaviors in terms of group process (Calista, 1973; Crittenden, et. al., 1975). The object of such an integrated evaluations framework would be to determine whether dynamics of student-teacher domains can be related enough to enhance learning.

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TABLE 1.--Means for Expectations and Evaluations - Compared by CI Category for Alpha, Beta and Gamma Classes and College Totals

Class and College	CI Category Mean												
	Content		Partici-pation		Style		Rapport		Evalua-tion		Require-ments		
	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	(N)
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	
Alpha													
A	26.1	25.0	17.5	17.9	19.5	18.8	19.6	19.2	16.2	16.9	18.8	17.5[a]	(23)
B	24.8	25.6	16.5	16.3	18.0	18.8	19.4	18.7	16.2	17.7	17.9	18.1	(21)
C	25.2	24.3[a]	17.0	15.5[a]	18.7	18.6	19.7	18.9	16.7	16.5	18.2	17.1[a]	(29)
D	24.6	23.0	17.3	14.2[b]	19.0	16.5[b]	19.9	17.9[b]	17.0	16.5	17.9	16.6[a]	(23)
Totals	25.2	24.4[a]	17.1	15.9[b]	18.8	18.2	19.7	18.7[b]	16.6	16.8	18.2	17.3[a]	(96)
Beta													
E	23.4	18.6[b]	15.3	11.3[b]	17.8	11.0[b]	19.2	11.7[b]	14.4	10.5[b]	16.2	12.6[b]	(25)
F	22.9	18.6[b]	15.5	13.0[b]	17.9	14.5[b]	18.5	15.5[b]	16.2	12.8[b]	16.8	13.0[b]	(24)
Totals	23.2	18.6[b]	15.4	12.1[b]	17.9	13.2[b]	18.9	13.5[b]	15.3	11.6[b]	16.5	12.8[b]	(49)
Gamma													
G	24.9	23.9[a]	16.3	15.3[a]	18.1	17.7	19.5	18.6[b]	15.1	13.8[a]	17.6	16.4[b]	(40)
H	24.0	21.0[b]	14.6	12.1[b]	15.9	13.2[b]	18.2	13.6[b]	15.2	13.5	17.6	14.4[b]	(24)
Totals	24.6	22.8[b]	15.7	14.1[b]	17.3	16.0[b]	19.0	16.7[b]	15.1	13.7[b]	17.6	15.6[b]	(64)

[a] t ratios significant at .05 level

[b] t ratios significant at .01 level

TABLE 2.--Mean Comparisons of in-and-across-year for Freshman and Sophomore CI Expectations and Evaluations Categories in Alpha, Beta and Gamma colleges*

College and Year	CI Category Mean												
	Content		Partici-pation		style		Rapport		Evalua-tion		Require-ments		
	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	Ex.	Ev.	(N)
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	
Alpha													
Fr.	25.0	23.8^{a}	17.4	15.8^{b}	19.2	17.8^{a}	19.7	18.4^{b}	16.8	16.8	18.2	17.3^{a}	(44)
So.	25.4	25.0^{x}	16.7	16.1	18.5	18.5	19.6	19.0	16.2	16.9	18.3	17.3^{a}	(52)
Beta													
Fr.	23.1	18.3^{c}	15.4	11.6^{c}	17.7	12.6^{c}	18.7	12.8^{c}	15.1	11.4^{c}	16.3	12.1^{c}	(30)
So.	23.3	$19.2^{c,y}$	15.5	$13.0^{a,y}$	18.2	$14.1^{c,z}$	19.2	$14.6^{c,z}$	15.6	$11.9^{c,x}$	16.7	$13.9^{c,z}$	(19)
Gamma													
Fr.	24.3	22.6^{b}	15.5	13.8^{a}	17.2	14.7^{b}	19.0	15.8^{c}	15.5	13.7^{a}	17.4	15.4^{c}	(29)
So.	24.8	23.0^{b}	15.8	14.3^{b}	17.4	17.1^{y}	19.0	$17.4^{b,x}$	15.2	13.7^{b}	17.7	15.7^{b}	(35)

*N. B. For in-year comparisons read across; for across-year read down.

a and x_t ratios significant at .05 level

b and y_t ratios significant at .01 level

c and z_t ratios significant at .001 level

TABLE 3.--Comparison of Rank Differences by CI Expectations Category with CI Evaluations Category within Alpha, Beta and Gamma College*

CI Category	College, Rank and Mean											
	Alpha[a]				Beta[b]				Gamma[c]			
	Ex.		Ev.		Ex.		Ev.		Ex.		Ev.	
	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$
Content	2	(6.3)	2.5	(6.1)	3	(5.8)	1	(4.6)	2	(6.2)	1	(5.7)
Participation	5	(5.7)	6	(5.3)	6	(5.0)	5	(4.0)	5	(5.2)	5	(4.7)
Style	3	(6.2)	2.5	(6.1)	2	(5.9)	3	(4.4)	3	(5.8)	3	(5.3)
Rapport	1	(6.5)	1	(6.2)	1	(6.3)	2	(4.5)	1	(6.3)	2	(5.5)
Evaluation	6	(5.5)	5	(5.6)	5	(5.1)	6	(3.8)	6	(5.0)	6	(4.6)
Requirements	4	(6.0)	4	(6.0)	4	(5.5)	4	(4.2)	4	(5.7)	4	(5.2)

*N. B. For Expectations alone: Rho = 1.0 for Alpha with Gamma colleges and Rho = .90 for the three colleges combined.

[a]Rho = .93.

[b]Rho = .76.

[c]Rho = .94.

TABLE 4.--Intercorrelations of CI Expectations and Evaluations Items for Alpha, Beta and Gamma By College Totals for Each Item (N=209)

Item No.	CI Category																			
Ev.	Ra	St	Ct	Ra	Ra	St	Pa	Pa	Ev	St	Ct	Re	Re	Re	Ev	Pa	Ct	Ev	Ev	Ct
Ex.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 (Ra)	25[a]	13	5	3	11	26[a]	22	19	11	17	11	21	23[a]	17	16	20	8	26[a]	11	31[b]
2 (St)	5	22	12	2	15	28[a]	21	9	2	12	7	11	17	10	12	14	7	18	2	21
3 (Ct)	11	11	29[a]	9	9	18	11	4	4	-2	12	18	16	15	17	5	12	20	6	15
4 (Ra)	17	9	8	14	21	27[a]	24[a]	4	-6	13	23[a]	10	13	16	1	21	13	15	1	22
5 (Ra)	14	7	-4	12	37[b]	26[a]	22	8	4	15	2	14	12	9	11	20	21	23[a]	-4	26[a]
6 (St)	22	10	11	15	23[a]	26[a]	19	12	7	22	17	20	16	19	9	17	11	18	1	19
7 (Pa)	16	16	17	10	28[a]	24[a]	34[b]	7	8	17	6	23[a]	13	15	19	4	26[a]	13	18	20
8 (Pa)	5	13	-5	10	23[a]	22	17	30[b]	9	19	8	4	21	13	9	8	9	13	-9	12
9 (Ev)	8	11	0	-2	10	14	8	16	44[b]	9	4	2	20	19	-6	-3	-4	8	-1	-2
10(St)	13	0	2	4	21	17	18	8	0	25[a]	6	17	16	19	11	17	16	19	-1	21
11(Ct)	13	7	9	21	21	19	14	9	1	15	21	24[a]	8	-2	19	22	12	16	6	25[a]
12(Re)	14	5	5	8	11	14	6	9	-8	-9	15	35[b]	14	5	20	13	9	19	-1	17
13(Re)	19	3	2	14	22	32[b]	19	17	2	14	15	20	29[a]	22	16	23[a]	19	23[a]	1	31[b]
14(Re)	13	3	-6	13	17	12	12	10	21	5	11	17	16	34[b]	12	11	6	12	-3	24[a]
15(Ev)	8	2	11	5	11	9	10	14	0	13	20	30[b]	31[b]	14	26[a]	28[a]	24[a]	21	6	29[a]
16(Pa)	19	1	8	4	18	12	9	6	-6	12	7	15	19	9	5	35[b]	21	6	-2	19
17(Ct)	12	1	7	6	20	14	14	10	-4	20	2	7	13	9	17	31[b]	27[a]	1	-7	23[a]
18(Ev)	-1	4	-9	5	2	7	12	6	3	17	14	12	2	3	6	17	14	34[b]	10	19
19(Ev)	13	3	8	12	18	13	10	9	15	2	14	15	17	8	14	20	6	10	28[a]	11
20(Ct)	20	6	12	25[a]	21	19	16	17	2	24[a]	8	21	22	11	11	29[a]	28[a]	20	3	38[b]

Note: Decimal omitted. CI Categories: Content (Ct); Participation (Pa); Style (St); Rapport (Ra); Evaluation (Ev); Requirements (Re).

[a] r significant at .05 level.

[b] r significant at .01 level.

TABLE 5.—Comparison of Two-Way Factor Analysis of Alpha, Beta and Gamma Colleges Showing Means and Variances for Each CI Item By Expectations and Evaluations(N=209)

Item No.	CI Category	Expectations				Evaluations			
		Factor I	Factor II	$\bar{X}$	VAR.	Factor I	Factor II	$\bar{X}$	VAR.
1	Rapport	36[b]	09	6.7	.21	66[c]	10	6.1	1.32
2	Style	55[c]	-18	6.4	1.76	69[c]	-9	5.2	2.25
3	Content	38[b]	-9	6.6	.38	68[c]	5	6.1	1.08
4	Rapport	37[b]	18	6.3	1.05	69[c]	5	5.7	2.23
5	Rapport	67[c]	15	6.1	1.25	71[c]	2	4.9	3.12
6	Style	63[c]	1	6.2	.95	61[c]	6	5.7	1.94
7	Particpation	50[c]	15	6.2	1.16	62[c]	-10	5.2	2.16
8	Participation	46[c]	15	4.3	2.55	46[c]	-1	3.8	3.04
9	Evaluation	30	-8	4.9	2.23	32[a]	17	4.2	3.14
10	Style	21	31[a]	5.9	1.68	80[c]	10	5.3	3.16
11	Content	20	32[a]	5.8	1.45	14	59[c]	5.1	2.57
12	Requirements	22	38[b]	5.6	1.82	22	40[b]	5.1	2.72
13	Requirements	23	46[c]	6.03	.82	16	55[c]	5.4	1.71
14	Requirements	30	38[b]	5.8	1.05	18	46[c]	5.2	1.83
15	Evaluation	27	38[b]	5.7	1.66	4	61[c]	5.3	2.56
16	Participation	18	52[c]	5.6	1.72	17	54[c]	5.2	2.47
17	Content	4	57[c]	6.2	.88	22	52[c]	5.7	1.68
18	Evaluation	21	26	5.3	1.95	-8	47[c]	5.0	2.33
19	Evaluation	16	22	5.5	.67	14	31[a]	5.7	.46
20	Content	25	65[c]	5.9	1.08	21	64[c]	5.6	1.87

Note: Decimal omitted. Factor I identified as Subjective vector; Factor II as Objective vector.

[a] r significant at .05 level.

[b] r significant at .01 level.

[c] r significant at .001 level.